

Mail Stop 3561

July 9, 2009

Gale E. Klappa  
Chief Executive Officer, President  
Wisconsin Energy Corporation  
231 West Michigan Street  
P.O. Box 1331  
Milwaukee, Wisconsin 53201

**Re: Wisconsin Energy Corporation  
Form 10-K for the Fiscal Year Ended December 31, 2008  
Filed February 27, 2009  
Definitive Proxy Statement on Schedule 14A  
Filed April 2, 2009  
Form 10-Q for the Fiscal Quarter Ended March 31, 2009  
Filed May 7, 2009  
File No. 001-09057**

Dear Mr. Klappa:

We have reviewed your filings and have the following comments. You should comply with the comments in all future filings, as applicable. Please confirm in writing that you will do so and also explain to us in sufficient detail for an understanding of the disclosure how you intend to comply by providing us with your proposed revisions. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Fiscal Year Ended December 31, 2008

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters..., page 38

Issuer Purchases of Equity Securities, page 39

1. We note your statement that your Issuer Purchases of Equity Securities Table does not include shares purchased by independent agents to satisfy obligations under your employee benefit plans and stock purchase and dividend reinvestment plan. Please revise your table to include the purchases of your shares that your independent agents made on your behalf or advise why it is not appropriate for you to do so. Please refer to Item 703(a) of Regulation S-K.

Item 7. Management's Discussion and Analysis of Financial Condition and Results..., page 41

Contractual Obligations/Commercial Commitments, page 58

2. We note your statement that you have omitted from your Contractual Obligations/Commercial Commitments Table contracts with multiple unknown variables. Please elaborate further the type of contracts that you omitted from the table, if they are, by your best estimate, material in amount, and what unknown variables prevented you from calculating the value.

Factors Affecting Results, Liquidity and Capital Resources, page 58

Market Risks and Other Significant Risks, page 58

Marketable Securities Return, page 60

3. We note your statement that you periodically conduct asset/liability studies of your trust fund assets with the assistance of an outside investment advisor and that the current study for the pension fund projects long-term annualized returns of approximately 8.25%. Please elaborate on how often you conduct your asset/liability studies, the date of your last study and if you anticipate conducting an asset/liability study sooner than anticipated due to the recent uncertainty in the securities markets. We also note in the third risk factor on page 31 that in January 2009 you paid \$270 million into your qualified pension fund, which was a substantial increase over the amount you paid in 2008. Please discuss if this increased payment was a result of your current asset/liability study.

Exhibit Index, page E-1

Exhibit 10 – Material Contracts, page E-3

4. We note that Exhibit 10.6 and Exhibit 10.7 both refer to credit agreements that you filed with your Form 10-Q for the fiscal quarter ended March 31, 2006. We also note that Schedule I in both of these agreements does not include the amount that each lender has committed to the credit line. While Item 601(b)(2) of Regulation S-K permits you to provide omitted information supplementally upon request, there is not a similar provision in Item 601(b)(10) of Regulation S-K. Please confirm that you will re-file a complete copy of these agreements with your next periodic report or advise why it is not appropriate for you to do so.

Definitive Proxy Statement on Schedule 14A

Compensation Discussion and Analysis, page P-19

Annual Base Salary, page P-20

5. We note that you take the individual contributions of each executive officer into consideration when you set the executive officer's annual base salary and their annual incentive program awards. Please describe the elements of individual performance and/or contribution that you take into account when making these compensation decisions.
6. We note your statement that Mr. Gale Klappa's 2008 annual base salary was above your target range. Please confirm if Mr. Klappa's annual base salary was greater than 10% of the market median and if so, by how much.
7. We note your statement that you believe that Mr. Allen L. Leverett's responsibilities and contributions vary widely from those of his counterparts within the general industry, and thus, additional compensation is warranted. Please discuss how Mr. Leverett's responsibilities and contributions vary widely from those of his counterparts within the general industry.

Annual Cash Incentive Compensation, page P-20

2008 Performance Goals, page P-21

8. We note that your performance goals consist of earnings per share from ongoing operations and cash flow. Please confirm if by the term "cash flow" you mean cash flow from operations and, if not, please define what you mean by "cash flow."
9. We note that the Compensation Committee established the target levels for earnings per share based upon expected earnings growth in 2008 in the utility industry as indicated by other utilities in their published earnings guidance. Please identify the companies that you

included in preparing your calculation of the expected earnings growth for the utility industry. Also, please discuss how you calculated the expected earnings growth for the utility industry in 2008.

10. We note that in January 2008 your Compensation Committee approved the performance goals that the executive officers had to achieve in order to receive a payout under your Short-Term Performance Plan. We also note that in January 2008 that the Public Service Commission of Wisconsin authorized an increase of 17.2% to your electric rates. Please advise if you considered how this rate increase might affect your 2008 earnings per share from ongoing operations and cash flow and thereby affect the potential payouts under your Short-Term Performance Plan. If your performance targets were already set at the time you received the rate order, please advise if you reconsidered your performance goals in light of the rate order.
11. We note that your Compensation Committee established your cash flow target levels to correspond to the budget necessary to achieve the same levels of earnings per share performance (i.e., the 100% cash flow target corresponds to the budget necessary to achieve the 100% earnings per share target). Please clarify your disclosure and discuss in greater detail how you set your cash flow target and how your budget and your projected earnings per share performance correspond to your cash flow target.

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Please respond to these comments within 10 business days or tell us when you will provide us with a response. If you amend one of your filings, you may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in these filings to be certain that the filings include all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; and

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- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filings or in response to our comments on your filings.

You may contact Robert W. Errett, Staff Attorney, at (202) 551-3225 or me at (202) 551-3720 with any questions.

Sincerely,

H. Christopher Owings  
Assistant Director